

REMARKS

Reconsideration is requested.

Claims 77-80 have been additionally canceled above, without prejudice. Claims 55, 59, 60, 62 and 68-76 and 81-93 are pending. Claims 74-76 and 90-93 have been withdrawn from consideration.

The Examiner's assistance in updating the BIB DATA SHEET of the PTO PAIR IFW is noted with appreciation. The Examiner is again requested however to review of the Bibliographic Data Sheet indexed on October 6, 2008, and provide a further Bibliographic Data Sheet which includes an acknowledgement that U.S. Serial No. 07/920,286 is a U.S. National Phase of PCT/EP91/02409, as is contained in hand-written text initialed and dated "12/31/1991" by an unidentified individual in the BIB DATA SHEET indexed in the PTO IFW on May 2, 2007.

The undersigned has requested, on more than one occasion, a Corrected Filing Receipt which includes the acknowledgement that U.S. Serial No. 07/920,286 is a U.S. National Phase of PCT/EP91/02409. See for example the Remarks of the Amendment filed November 2, 2007 and the Remarks of the Amendment After Final Rejection filed June 9, 2008. The Office is again requested to issue a Corrected Filing Receipt.

The following is a listing of Peptides of the specification with the corresponding SEQ ID NO: and HCV region, for the convenience of the Examiner.

Peptide No.	SEQ ID NO:	Amino acid region
I	1	1-20
II	2	7-26
IIA	3	8-18
III	4	13-32

Peptide No.	SEQ ID NO:	Amino acid region
IV	5	37-56
V	6	49-68
VI	7	61-80
VII	8	73-92
VIII	9	1688-1707
IX	10	1694-1713
X	11	1706-1725
XI	12	1721-1731
XII	13	1718-1737
XIII	14	1724-1743
XIV	15	1730-1749
XV	16	2263-2282
XVI	17	2275-2284
XVII	18	2287-2306
XVIII	19	2299-2318
XIX	20	2311-2330
	23	Composite HCV

The Examiner is requested to appreciate that page 4, lines 1-8 of the specification, for example, describes an aspect of the invention as including peptides of various specific lengths, as recited in the claims. Moreover, the passage describes that peptide of the invention include lengths of described sequences joined together. One of ordinary skill in the art will appreciate from this disclosure that the applicants were in possession of peptides consisting of, for example, a peptide of amino acids of 1-92 of an HCV polypeptide. More specifically, one of ordinary skill in the art will appreciate that joining of the overlapping peptides I, II, IIA, III, IV, V, VI and VII will produce a peptide spanning amino acids 1-92 of an HCV polypeptide and specifically amino acids 1-92 of SEQ ID NO:23. Claim 71 has been revised to recite these described aspects of the disclosure. No new matter has been added.

The Examiner's comments regarding the cited art (i.e., Houghton (U.S. Patent No. 5,350,671) on pages 7-11 of the Office Action dated October 6, 2008 are noted. The Examiner is again requested to appreciate that the following required aspect of the present independent claim 55 have been previously held by the U.S. Patent Office to be patentable over the cited art:

SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 7 to 26 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 13 to 32 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of amino acids 37 to 56 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 49 to 68 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of amino acids 61 to 80 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of amino acids 73 to 92 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1688 to 1707 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1694 to 1713 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1706 to 1725 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1712 to 1731 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to at most 12 amino acids located in the region consisting of amino acids 1718 to 1737 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1724 to 1743 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to at most 12 amino acids located in the region consisting of amino acids 1730 to 1749 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 2287 to 2306 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 2299 to 2318 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 2311 to 2330 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:2,

a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:4,

a peptide consisting of 5, 6, 8, 12 or 20 amino acids of amino acids 37 to 56 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:6,

a peptide consisting of 5, 6, 8, 12 or 20 amino acids of amino acids 61 to 80 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of 5, 6, 8, 12 or 20 amino acids of amino acids 73 to 92 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV,

a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:9,
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:10,
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:11,
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:12,
a peptide consisting of at least 5 to at most 12 amino acids of SEQ ID NO:13,
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:14,
a peptide consisting of at least 5 to at most 12 amino acids of SEQ ID NO:15,
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO: 18,
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO: 19,
and

a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO: 20.

The present claims, which require at least one of these patentable components, are patentable over the cited art as the Patent Office has previously confirmed that the cited art fails to teach at least one aspect of the presently claimed invention.

The fact that the claims may not be supported by an adequate written description, as alleged by the Examiner, does not negative the fact that the claims

require at least one of the above patentable elements.¹ The Examiner's "reminder" regarding consideration of each application on its merits is appreciated.² The Examiner is similarly reminded however that MPEP § 1701 states as follows with regard to Examiner's comments suggesting issued patent claims are found in the prior art:³

Every patent is presumed to be valid. 35 U.S.C. 282, first sentence. Public policy demands that every employee of the United States Patent and Trademark Office (USPTO) refuse to express to any person any opinion as to the validity or invalidity of, or the patentability or unpatentability of any claim in any U.S. patent, except to the extent necessary to carry out

- (A) an examination of a reissue application of the patent,
- (B) a reexamination proceeding to reexamine the patent, or
- (C) an interference involving the patent.

The question of validity or invalidity is otherwise exclusively a matter to be determined by a court. >Likewise, the question of enforceability or unenforceability is exclusively a matter to be determined by a court.< Members of the patent examining corps are cautioned to be especially wary of any inquiry from any person outside the USPTO, including an employee of another U.S. Government agency, the answer to which might indicate that a particular patent should not have issued. No USPTO employee may pursue a bounty offered by a private sector source for identifying prior art. The acceptance of payments from outside sources for prior art search activities may subject the employee to administrative disciplinary action.

The fact that the scope of the present claims may be broader than previously granted or issued claims should also not be relevant to the patentability of the present

¹ See page 11 of the Office Action dated October 6, 2008.

claims over the cited art⁴, as the claims require structures as distinct molecules which were previously found by the Patent Office to be patentable over the cited art.

The comparison of the Amendment filed June 9, 2008 is reproduced below for completeness and the Examiner's consideration.

Specifically, independent claim 55 and the claims dependent therefrom require a molecule previously indicated by the Patent Office in a priority application as being patentable. Specifically, the additional required molecules are individually claimed in the claims and patents noted in the following Table:

molecules	Patent – claims
SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 16, SEQ ID NO: 17, SEQ ID NO: 18, SEQ ID NO: 19, SEQ ID NO: 20	U.S. Patent No. 6,007,982 – claims 1-7; U.S. Patent No. 5,910,404 – claims 1-6; U.S. Patent No. 5,922,532 – claims 1-5
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 7 to 26 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 1
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 13 to 32 of the HCV	U.S. Patent No. 6,872,520 – claim 2

² Id.

³ Obtained from www.uspto.gov (January 16, 2009).

⁴ See page 11 of the Office Action dated October 6, 2009.

molecules	Patent – claims
polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	
a peptide consisting of amino acids 37 to 56 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 3
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 49 to 68 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 4
a peptide consisting of amino acids 61 to 80 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 5
a peptide consisting of amino acids 73 to 92 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 6
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1688 to 1707 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,287,761 – claim 1
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of	U.S. Patent No. 6,287,761 – claim 5

molecules	Patent – claims
amino acids 1694 to 1713 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1706 to 1725 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,287,761 – claim 9
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1712 to 1731 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,287,761 – claim 13
a peptide consisting of at least 5 to at most 12 amino acids located in the region consisting of amino acids 1718 to 1737 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,287,761 – claim 17
a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 1724 to 1743 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,287,761 – claim 19
a peptide consisting of at least 5	U.S. Patent No. 6,287,761 – claim 23

<p>molecules</p> <p>to at most 12 amino acids located in the region consisting of amino acids 1730 to 1749 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV</p>	<p>Patent – claims</p>
<p>a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 2287 to 2306 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV</p>	<p>U.S. Patent No. 6,576,417 – claim 1</p>
<p>a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 2299 to 2318 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV</p>	<p>U.S. Patent No. 6,576,417 – claim 4</p>
<p>a peptide consisting of at least 5 to less than 20 amino acids located in the region consisting of amino acids 2311 to 2330 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV</p>	<p>U.S. Patent No. 6,576,417 – claim 7</p>
<p>a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:2</p>	<p>U.S. Patent No. 6,872,520 – claim 19</p>
<p>a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:4</p>	<p>U.S. Patent No. 6,872,520 – claim 20</p>
<p>a peptide consisting of 5, 6, 8, 12 or 20 amino acids of amino acids</p>	<p>U.S. Patent No. 6,872,520 – claim 22</p>

molecules	Patent – claims
37 to 56 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:6	U.S. Patent No. 6,872,520 – claim 21
a peptide consisting of 5, 6, 8, 12 or 20 amino acids of amino acids 61 to 80 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 23
a peptide consisting of 5, 6, 8, 12 or 20 amino acids of amino acids 73 to 92 of the HCV polyprotein of an HCV isolate which is capable of providing for immunological competition with at least one strain of HCV	U.S. Patent No. 6,872,520 – claim 24
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:9	U.S. Patent No. 6,287,761 – claim 2
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:10	U.S. Patent No. 6,287,761 – claim 6
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:11	U.S. Patent No. 6,287,761 – claim 10
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:12	U.S. Patent No. 6,287,761 – claim 14
a peptide consisting of at least 5 to at most 12 amino acids of SEQ ID NO:13	U.S. Patent No. 6,287,761 – claim 18
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO:14	U.S. Patent No. 6,287,761 – claim 20
a peptide consisting of at least 5 to at most 12 amino acids of SEQ	U.S. Patent No. 6,287,761 – claim 24

molecules	Patent – claims
ID NO:15	
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO: 18	U.S. Patent No. 6,576,417 – claim 10
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO: 19	U.S. Patent No. 6,576,417 – claim 11
a peptide consisting of at least 5 to less than 20 amino acids of SEQ ID NO: 20	U.S. Patent No. 6,576,417 – claim 12

The additional combination of distinct components with the previously confirmed patentable subject matter fails to make the claimed invention a part of the prior art.

Withdrawal of the Section 102 rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over Houghton is requested.

The Section 112, second paragraph, rejection of claims 55, 59, 60, 62 and 68-89 is obviated by the above amendments. The claims are submitted to be definite. One of ordinary skill in the art will appreciate the location of the recited regions of amino acids of an HCV polyprotein from the teachings of the specification and the generally advanced level of skill in the art. The language of the amended claims is similar to claim language which has been previously held by the Patent Office to be definite in the applicants parent U.S. Patent Nos. 6,872,520; 6,576,417 and 6,287,761, for example. The applicants specifically note that the claims of the indicated patents do not require reference to, for example, SEQ ID NO:23, as is suggested by the present Examiner.⁵

⁵ See page 3 of the Office Action dated October 6, 2009.

The Examiner's helpful suggestions on page 4 of the Office Action dated October 6, 2008 has been incorporated in to claim 55 above.

With regard to the Examiner's comment relating to claim 71 on page 5 of the Office Action dated October 6, 2008, the applicants note that the components of paragraphs (a), (b) and (c) of the claims are not limited to 20 amino acids in either the unamended or amended claims. Specifically, the molecules of paragraphs (a), (b) and (c) are described as "comprising" the recited amino acids. The claims are definite.

Withdrawal of the Section 112, second paragraph, rejection is requested.

To the extent not obviate by the above, the Section 112, first paragraph "written description", rejection of claims 55, 59, 60, 62 and 68-89 is traversed. Reconsideration and withdrawal of the rejection are requested in view of the above and the following comments.

The peptide of at least 5 to less than 20 amino acids recited in claim 55 have been found by the Patent Office to be supported by an adequate written description in the present specification. The Examiner is requested to see the above remarks and previous remarks of record in this regard. The Examiner is further requested to see the whole of the specification, such as the above-noted description of page 4 of the specification, which includes additional adequate written description of the further aspects of the claimed invention, such as the objected-to claims 55 and 71-73. Claims 77-80 have been canceled above, without prejudice.

Withdrawal of the Section 112, first paragraph "written description", rejection is requested.

The following obviousness-type double patenting rejection of claims 55, 59, 60, 62, 68-73 and 77-89 are obviated by the concurrently filed Terminal Disclaimers:

The rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over claims 1-7, 12, 19-22, 27, 32, 33 and 38 of U.S. Patent No. 6,007,982;

The rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over claims 1-6, 13-15, 22, 23, 26, 39 and 40 of U.S. Patent No. 5,910,404;

The rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over claims 1-6, 13-24 and 26 of U.S. Patent No. 6,872,520 B2;

The rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over claims 1-5, 7, 12 and 21-24 of U.S. Patent No. 5,922,532;

The rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over claims 1-3, 5-7, 9-11, 13-15, 17-24, 27 and 28 of U.S. Patent No. 6,287,761 B1; and

The rejection of claims 55, 59, 60, 62, 68-73 and 77-89 over claims 1, 3, 4, 6, 7 and 9-12 of U.S. Patent No. 6,576,417 B2.

Withdrawal of the obviousness-type double patenting rejections is requested.

The claims are submitted to be in condition for allowance. Rejoinder and allowance of any claim defining a method of making and/or using a product defined by an allowable claim are requested.

Entry of the present Amendment and a Notice of Allowance are requested. The Examiner is requested to contact the undersigned, preferably by telephone, in the event anything further is required.

DeLeys et al
Appl. No. 10/822,871
Atty. Ref.: 2551-141
Amendment
February 3, 2009

Respectfully submitted,

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